

UNITED STATES

v.

SHINY ROCK MINING CORP.

IBLA 88-41

Decided January 12, 1990

Cross-appeals from a decision of Administrative Law Judge Michael L. Morehouse declaring the Santiam No. 1 lode mining claim invalid, and declaring the Morning Star, Ruth No. 1, and Ruth No. 2 lode mining claims, and the Hewitt, Starvation, and Poor Boy millsite claims valid. OR MC 27391, OR MC 27304, OR MC 27356, OR MC 27357, OR MC 27446, OR MC 27447, OR MC 27448.

Reversed in part; affirmed in part.

1. Mining Claims: Determination of Validity--Mining Claims: Discovery: Generally--Mining Claims: Discovery: Marketability--Mining Claims: Marketability

The standard of discovery in a contest of a mining claim is whether minerals have been found in sufficient quantity and quality that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine. This standard has been supplemented by the marketability test, requiring a showing that the mineral deposit can be mined, removed, and marketed at a profit.

2. Mining Claims: Determination of Validity--Mining Claims: Discovery: Marketability--Mining Claims: Marketability

Under the marketability test, a mining claimant must show that, as a present fact, taking into consideration historic price and cost factors as well as the likelihood of their continuance or change, there is a reasonable likelihood of success that a paying mine can be developed.

3. Mining Claims: Generally--Mining Claims: Determination of Validity--Mining Claims: Discovery: Generally

When an exposure of locatable mineral in place has been shown to exist within the boundaries of each mining claim, a group of contiguous mining claims can be considered as a group when determining whether a person of ordinary prudence would be justified in the further expenditure of his time and means with a reasonable prospect of success in the development of a mine. The concept of developing a "mine" can reasonably contemplate operations on a series of contiguous claims.

4. Millsites: Generally--Mining Claims: Millsites--Rules of Practice: Appeals: Burden of Proof

Where the Government has presented evidence that various dependent millsites are not being used or occupied for mining or milling purposes, the Government has established a prima facie case of invalidity because such

use or occupancy is a prerequisite to the validity of a millsite claim under 30 U.S.C. § 42 (1982). Upon presentation of such evidence, the burden shifts to the millsite claimant to affirmatively establish that the claim is used or occupied for mining and milling purposes.

5. Millsites: Generally--Millsites: Determination of Validity--Mining Claims: Millsites

Where a millsite claim is located in conjunction with lode mining claims, an applicant for mineral patent must show that the millsite claim is located on nonmineral land and is used or occupied for mining operations. 30 U.S.C. § 42(a) (1982).

APPEARANCES: Arno Reifenberg, Esq., Office of the General Counsel, U.S. Department of Agriculture, Portland, Oregon, for the Forest Service; M. Craig Haase, Esq., Reno, Nevada, for Shiny Rock Mining Corporation.

#### OPINION BY ADMINISTRATIVE JUDGE IRWIN

Shiny Rock Mining Corporation (Shiny Rock) has appealed from that portion of a decision dated September 4, 1987, by Administrative Law Judge Michael L. Morehouse which declares the Santiam No. 1 lode mining claim (OR MC 27391) invalid. The Forest Service (FS) has appealed from those portions of the same decision which declare valid the Morning Star, the Ruth No. 1, and the Ruth No. 2 lode mining claims <sup>1/</sup> (OR MC 27304,

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<sup>1/</sup> Throughout these administrative proceedings, the parties have often referred to the Ruth Nos. 1 and 2 claims together as "the Ruth mine." Likewise, in this decision, the denomination "the Ruth mine" includes the Ruth Nos. 1 and 2 mining claims.

OR MC 27356, OR MC 27357), as well as the Hewitt, the Starvation, and the Poor Boy millsite claims (OR MC 27446, OR MC 27447, OR MC 27448). All of these claims lie within an area known as the Santiam Mining District, located in the Willamette National Forest at the headwaters of the Little North Santiam River in Marion County, Oregon, east of Salem, Oregon.

### Background

J. P. Hewitt located the Ruth No. 1 claim on July 1, 1929; Henry Tannler located the Ruth No. 2 claim on July 1, 1929; R. I. Dawes located the Morning Star claim on April 19, 1926; John Rieder located the Santiam No. 1 claim on October 25, 1954; J. P. Hewitt located the Hewitt millsite on March 17, 1970; and George Atiyeh, on behalf of Shiny Rock, located the Starvation and the Poor Boy millsites on December 15, 1975. As summarized by Judge Morehouse, the claims have been "variously held by Amalgamated Mining Company, Columbia Mines Development Company, Pacific Smelting and Refining Company, Santiam Copper Mine Company, and finally, Shiny Rock Mining Corporation" (Decision at 9).

In a December 1980 feasibility study submitted in support of the patent applications, George Atiyeh provided a brief background and his-tory of the claims, which we set forth below:

The Ruth and Morning Star mines on Battle Ax Creek were originally known as the Lewis and Clark mine, and until 1929 consisted of a few short tunnels and prospect holes with indications of a rich vein of lead/zinc. In the 1930s, the ore body was explored on two levels, with ore milled off the fourth and fifth levels in 1933-34. A combination floatation and gravity separation ore mill was built just east of the present millsites. In the 1940s, the Bureau of Mines, under reconstruction financing, developed three small stopes in the fifth level of the Ruth mine and prepared a report on the property.

The Santiam No. 1 was originally a placer mining claim at the junction of Gold Creek and the Little North Fork of the Santiam River. This property has been operated under various names such as Freeland Consolidated, Electric Mining and Smelt-ing, Consolidated Copper Mining and Power, Lotts Larson Mine, and Northwest Copper Company. It is referred to in Geology and Mineral Industries Bulletin 14 D, published in 1951, as the Santiam No. 1 or Minnie E. During its history, approximately 1300 feet of drift was put in along the vein and a winze sunk to 96 feet. \* \* \* Crude ore and sorted ore concentrates have been shipped over the years. In 1941, a small mill was installed and concentrates were shipped. Of the sorted ore shipped, averaged assays show 10% copper, 3 ounces of silver and .03 ounces of gold to the ton. Of the concentrates, averaged assays show 19.09% copper, 4.96 ounces of silver, and .04 ounces of gold per ton. Gravity concentration methods were used in order to produce the concentrate.

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The Hewitt millsite consists of five acres on which 18 buildings have been constructed from 1932 to the present. The Starvation millsite is also five acres in size and is the site of the ore reduction plant which was constructed in 1976. The reduction plant [located on the Starvation millsite] has a crushing capacity of 150 tons and a concentrating capacity of 25 tons, based on a 24 hour day. The Poor Boy millsite consists of hydro-electric generation facilities, a cook house designed to feed 50 men, a core shed to store and log core from ongoing exploration projects, and storage buildings for heavy mining equipment, such as dumptrucks, muckers, air lines and rails. The cook house is of the same vintage as buildings on the Hewitt millsite, while the power house and buildings protecting the mining equipment were constructed in the latter 1970s.

(Feasibility Study at 9-11).

On May 20, 1981, Shiny Rock filed patent applications regarding the lode mining claims and the millsite claims at issue in this appeal. <sup>2/</sup> On June 19, 1984, the Bureau of Land Management (BLM) issued contest complaints at the request of FS, charging that no discovery of valuable minerals had been made within the limits of the lode mining claims; that the millsite claims had not been used or occupied for milling and mining purposes; and that no source of ore had been shown for the millsites. In addition, the complaints regarding the Poor Boy and Hewitt millsite claims alleged:

Portions of the millsite[s] are within an area which were withdrawn from appropriation under the mining laws effective December 8, 1964. The millsite[s] [were] not located until after December 8, 1964, and the area has not been continuously used or occupied for mining and milling purposes for 10 years before that date.

Shiny Rock filed a timely answer, and a hearing was begun before Judge Morehouse September 23-26, 1985. Judge Morehouse viewed the general area of the claims and millsites on September 26, 1985. The hearing was continued at the request of the parties, then resumed on May 5, 1986, and concluded on May 17, 1986.

At the beginning of the hearing, Shiny Rock moved for summary judgment on the basis of res judicata and collateral estoppel, filing voluminous attachments in support thereof (Exhs. R-16, R-17). This motion derived from proceedings begun by the Department on behalf of FS

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<sup>2/</sup> Shiny Rock also filed patent applications for the Ruth No. 4 and the Mandalay lode mining claims. BLM filed contest complaints against those claims, as well as against the Mandalay Fraction. Shiny Rock stipulated at the hearing before Judge Morehouse "that it withdrew its contentions with respect to those claims that there existed a valid discovery suffi-cient to support the issuance of a patent" (Decision at 9). Judge Morehouse ruled these claims to be invalid. *Id.* Accordingly, these claims are not subject to the cross-appeals to the Board.

on December 11, 1956, and concluded on October 11, 1966, adjudicating surface rights pursuant to the Surface Resources Act of July 23, 1955, 30 U.S.C. § 613 (1982), against numerous mining claims in the Willamette National Forest, including the claims at issue in the instant appeal. In 1959, 1960, and 1961, FS mineral examiner Raymond F. Shirley and Colver F. Anderson conducted mineral examinations of the claims, concluding that a valid discovery existed on the Santiam No. 1, the Morning Star, the Ruth No. 1, and the Ruth No. 2 lode mining claims (Exhs. R-16B, R-16D). Administrative hearings were held in October 1962 concerning the validity of certain other mining claims which the mineral examiners had determined did not contain a discovery. During these proceedings, conducted by Hearing Examiner Holt, the following colloquy took place:

Q. [by Mr. Clarke] As a result of your examination, did you place on the approved list certain claims in the area?

A. [by Mr. Shirley] Yes, sir.

Q. Which claims were those?

A. The claims--

Q. By this approved list, do I understand that these were the ones where there would be no objection to the patent?

A. Well, in my opinion, there is a discovery on the claims. The Mandalay [Fraction] is one of them, the Santiam 1, which doesn't show on this map, the Morning Star, the Ruth 1, the Ruth 2. I think that's the group.

(Tr. 23, quoted in Shiny Rock Motion for Summary Decision at 11).

Later, Shirley explained what would be required to constitute a discovery of a valuable mineral deposit:

THE WITNESS: [Shirley] Your question, then, sir is: what do I consider necessary for discovery?

Q. [By Mr. LaRoche] Yes.

A. In my opinion, the requisite for a discovery is the location of a valuable mineral deposit.

Q. And what would be a valuable mineral deposit?

A. The emphasis is on valuable and deposit, which is mineral.

Q. Well, how much would you have to disclose?

A. You would have to disclose, as I understand the law, you would have to have sufficient evidence of a valuable mineral deposit, that a reasonable prudent man, with further investment

of his time and money, has a reasonable prospect of developing a paying mine.

Q. Well, how much, percentage-wise, in metal would you need in mineral?

A. Well, at this time, you would have to have enough metal in sight, since this is a complex sulfide ore, to either ship as mine run rock, which means it would have to be extremely heavy with lead, zinc or copper, or justify the erection and amortization of a mill. This rock should be milled before it would leave the canyon. You would have to have enough rock in sight for which there was a market, to amortize that mill, plus your initial investment in the mine.

\* \* \* \* \*

Q. Well, what is a reasonable chance? How is that ever going to be determined?

A. Well, it is determined by people by a study of the markets to the extent that they can feel that any investment in plant and in mine would give them a return of their investment with a profit in a reasonable future, not something way out in the future.

(Id. at 117-18).

In his decision dated February 23, 1963, Hearings Examiner Graydon E. Holt, having determined that certain claims not at issue herein did not bear a discovery of a valuable mineral deposit, and thus that surface rights with respect to those claims were properly restricted under the Surface Resources Act of July 23, 1955, supra, observed with regard to the lode mining claims involved in this appeal:

The evidence regarding the remaining claims clearly established that the area in general is characterized by numerous fractures containing erratic mineralization and that in a number of locations the mineralization is sufficiently concentrated in the form of ore chutes to induce development. Such concentrations have been identified in the veins on the Ruth 1 and 2, on the Morning Star, and on the Santiam 1.

(Exh. R-16E). Subsequently, on October 11, 1966, a stipulation entitled "Determination of Surface Rights" granted surface control of the mining claims at issue to the predecessors of Shiny Rock. However, that stipulation provided that "nothing herein shall be construed as precluding the United States from contesting the validity of these mining claims" (Exh. G-6). A formal decision to the same effect was issued by the land office on November 16, 1966 (Exh. R-16A).

Judge Morehouse denied Shiny Rock's motion for summary judgment, reasoning that the Government is not estopped from relitigating the issue

of whether the mining claims bear valid discoveries. He noted that "[t]he prior administrative litigation involved the right to control the surface of the claims at issue, not patentability" (Decision at 7). He reasoned that in order for estoppel to apply herein,

some agent of the Government who was authorized to declare the claims valid should have falsely represented or concealed material facts from the appellants concerning the validity of these claims with the intention that the appellants should act upon it, with the result that the appellants were thereby induced to do so to their ultimate damage.

(Decision at 7, citing Utah v. United States, 284 U.S. 534, 545 (1932); Cramer v. United States, 261 U.S. 219, 234 (1923); Hampton v. Paramount Pictures Corp., 279 F.2d 100, 104 (9th Cir. 1960)).

On appeal to the Board, Shiny Rock appears to have abandoned its res judicata and estoppel argument, focusing instead upon the patentability of the lode mining claims and the millsite claims. While much of the evidence adduced during the proceedings under the Surface Resources Act is relevant in the present proceedings, the determination of validity, occurring as it did in 1966 in the context of a dispute under the Surface Resources Act, supra, does not resolve the question of whether, as a present matter, the claims bear a discovery of a valuable mineral deposit. We turn to that analysis.

#### The Lode Mining Claims

[1] Each of Shiny Rock's lode mining claims must meet the criteria for a discovery of a valuable mineral deposit as set forth in United States v. Aiken Builders Products, 95 IBLA 55, 57-58 (1986):

In order to support a discovery of a valuable mineral deposit, the evidence must disclose a discovery of a deposit such that a man of ordinary prudence would be justified in the further expenditure of his labor and means with a reasonable prospect of success in developing a valuable mine. Castle v. Womble, 19 L.D. 455, 457 (1894). As the Supreme Court recognized in United States v. Coleman, [390 U.S. 599] at 602 (1968), the purpose of the mining law is to reward and encourage discovery of minerals which are valuable in an economic sense--minerals which no prudent man would extract because there is no demand for them at a price higher than the cost of extraction and transportation are not economically valuable. Hence, the marketability test, i.e., whether the mineral deposit can be mined, removed, and marketed at a profit, has emerged as the logical complement to the prudent man test. Id. at 602.

[2] In addition, the Board has stated that under the marketability test a mining claimant "must show that, as a present fact, considering historic price and cost factors and assuming that they will continue, there is a reasonable likelihood of success that a paying mine can be developed." In re Pacific Coast Molybdenum, 75 IBLA 16, 29, 90 I.D. 352, 360 (1983).

We will evaluate Judge Morehouse's rulings with respect to the Santiam No. 1, the Morning Star, and the Ruth lode mining claims under these basic rules.

The Santiam No. 1 Mining Claim

Judge Morehouse's summary of the evidence regarding the Santiam No. 1 mining claim is set forth below:

Callaghan and Buddington report in a 1938 USGS Mineral Bulletin that most of the mining and development work on the principle [sic] vein on the Santiam 1 (and the Santiam 2 to the south) was done between 1915 and 1917. They described the vein in the north drift (Santiam No. 1) as being:

100 feet long and in some places 18 inches wide. A winze, now full of water, is reported to have exposed 14 inches of chalcopryite 96 feet below the tunnel. In places the shoot contains three seams of almost solid chalcopryite, each 3 inches wide, associated with quartz stringer and altered rock. The vein pinches down to 1 inch at the end of the drift. An assay map by W. J. Elmendorf shows an average metal content for this shoot of 4.47 percent of copper, 1.22 ounces of silver to the ton, and no gold for a width of 6 feet. (Exh. R-27, p.96).

The next report of examination appears to be that of Shirley and Holmgren (Exh. R-16D). In 1960 and 1961, they took six samples in the Santiam No. 1 showing the following respective values: None, none, 2.8 percent, 1.05 percent, 2.8 percent and 11.4 percent [copper]. They noted:

The outstanding feature of the structure as exposed in the left branch of the drift is the impression of strength. The structure, or vein, has a good width and exhibits good mineralization which is fairly continuous.

They also noted existence of the 96 foot winze which was reported to carry excellent copper value. They concluded that this evidence supported a discovery on the Santiam 1.

In 1981, the winze was pumped out, and a Mr. Suchy, a Forest Service mineral examiner, and George Atiyeh, President of Shiny Rock, took samples from the bottom of the winze. There is some conflict as to the number of samples taken and their values; however, at a minimum, the copper values averaged approximately 2.65 percent. In 1982, Dr. [Robert] Grant [FS' expert,] took five samples from the Santiam 1 with values between .044 percent and 6.198 percent, the higher values apparently coming from the vein in the west drift (Exh. R-17P, p.13, Appendix 1, p.3). Dr. Grant figured a weighted average of 3.17 percent copper and .9 ounce per



ton silver with an indicated tonnage reserve of 2,124 and an inferred tonnage of approximately the same amount. He had a discussion with a representative of a Japanese smelter, and after taking into consideration mining costs and milling costs at the small mill on the Starvation millsite, together with transportation costs, he testified that he did not believe a reasonable man would expend further time and resources in the development of this case.

Dr. Lawrence James, a consulting mining geologist employed by the contestee, testified that he examined the Santiam 1 in 1985 and took two samples from the west drift. The first assayed at 4.45 copper and the second at 11.5 percent. He also took into consideration a sample taken by a Mr. Hall, a geologist employed by Shiny Rock, in the west drift of Santiam 1 which was .85 percent copper. Exh. R-87 samples 203, 204, and 2394. He testified that there were several hundred tons of ore grade material in sight and extractable from existing workings and that several thousand tons of good grade ore could be inferred by assuming development on the structure would find a grade similar to that produced in the past. He stated that the mill on the Starvation millsite could be easily modified to concentrate this ore, and after consulting two Pacific rim small lot concentrate brokers, testified that in his opinion a reasonable man would be justified in expending his time and resources in developing the claim.

(Decision at 10-11).

Judge Morehouse stated that in his opinion "the question of validity or non-validity of this claim is a very close question." Id. at 11. He recognized that "Shirley and Holmgren thought the claim was valid in 1960 and 1961, and that James was of the same opinion in 1985," and that "samples have been taken with good copper values." Id. Nevertheless, he found the claim to be invalid, stating that "the reserves are small, the milling of the ore is problematic, having never been attempted at the present mill, the ability to sell the concentrate is speculative, and finally, there has been no real development of the claim for over 60 years." Id.

In its statement of reasons (SOR) for appealing Judge Morehouse's ruling that the Santiam No. 1 claim is invalid, Shiny Rock maintains that

[w]hile it is certainly unarguable that the known copper ore reserves on the Santiam No. 1 do not constitute the world's largest copper mine, that is not the issue in discovery proceedings. Rather, the issue is whether there are sufficient ore reserves to encourage a prudent man to invest his money and labor with the reasonable expectancy of developing a paying mine. In re Pacific Coast Molybdenum Co., 90 I.D. 352, 75 IBLA 16 (1983).

(Shiny Rock SOR at 8).

Shiny Rock points out that Judge Morehouse failed to address the subject of the grade of the ore reserves on the Santiam No. 1 mine. In

Shiny Rock's view, "the grade of the reserves is a question of significant importance." *Id.* Shiny Rock asserts that the grade of the Santiam No. 1 reserves is "exceptionally high in copper (approximately 6%) because of the presence of a substantial amount of chalcocite." *Id.* 3/ Mr. Lentz, an FS mineral examiner who was present during the mineral examination of the winze in the northwest adit of the Santiam No. 1 in 1981, stated that the ore comprising the Santiam No. 1 reserves was about half chalcocite and half chalcopyrite (Tr. 2615). Dr. James noted a considerable amount of chalcocite (Tr. 2415). Shiny Rock emphasizes that a large number of assay results, ranging from 2 percent copper per ton to 39.2 percent copper per ton, and 0.6 ounces of silver per ton to 4.04 ounces of silver per ton, show the high grade of ore on the Santiam No. 1 claim. *See* Shiny Rock Posthearing Response at 163-66.

In addition, Shiny Rock points out that both Dr. James and Dr. Grant believed there was a minimum tonnage of known ore reserves of between 2,000 and 3,000 tons on the Santiam No. 1 claim, and that there was an equal amount of additional inferred ore reserves (Exh. G-14; Tr. 317, 2822, 2374). The minimum tonnage of 3,000 to 6,000 tons of ore on the claim represents between 360,000 and 620,000 pounds of copper in place. Shiny Rock maintains that this "can readily be milled at Shiny Rock's mill on the Starvation millsite, approximately two and one-half miles from the Santiam No. 1 claim" (Shiny Rock SOR at 10). Shiny Rock estimates that the "presently known available ore in the Santiam No. 1 would provide the Shiny Rock mill with feed for between two and four years of operations." *Id.* at 11.

Moreover, according to Shiny Rock's calculations, the Santiam No. 1 claim can be mined at a profit. As recently as January 7, 1988, asserts Shiny Rock, copper was selling for \$1.53 a pound and silver was selling for \$7 an ounce. Using the weighted assay average of the samples taken by mineral examiner Shirley, Geologist Hall, and Dr. James of 5.98 percent copper and 1.84 ounces of silver, Shiny Rock calculates the gross value of the presently known ore, using current prices, to be \$197 per ton, with the gross value of the known Santiam No. 1 ore ranging between \$591,000 and \$1,182,000. At the hearing, Dr. James went through the exercise of calculating a net smelter return to Shiny Rock (Tr. 2365-2370). This smelter return and profit schedule is set forth below:

In performing that exercise, and assuming a 30% copper concentrate containing only two ounces of silver, Dr. James testified that a typical Pacific Rim Smelter would deduct 1.2% of the copper as a slag loss, would charge approximately \$80.00 for a smelting charge, would charge approximately nine cents per pound of smelted copper as a refining charge to electrolytic copper and would pay for 90% of the contained silver. Given this basic information,

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3/ Shiny Rock states that it is the presence of chalcocite which makes the Santiam No. 1 claim so rich in copper. Shiny Rock cites Cornelius S. Hurlbut, Jr., *Dana's Manual for Mineralogy*, 244-251 (18th ed. 1959), for the proposition that chalcocite is composed of approximately 80 percent copper and 20 percent sulfur, and that chalcopyrite is composed of approximately 35 percent copper, 30 percent iron, and 35 percent sulfur.

the following smelter return and profit schedule can be calculated:

Amount of Cu/ton (30% x 2000 lbs)	= 600 lbs.
Less slag loss (1.2% x 2000 lbs)	= <24> lbs.
Net of paid copper	576 lbs.
Gross value Cu in concentrate	
(576 lbs x \$1.53)	= \$881
\$80/ton treatment charge	= <80>
\$0.09/pound of Cu refining cost	
(\$.09 x 576)	= <52>
Paid value of Ag in concentrate	
(90% x 2 oz. x \$7.00)	= <u>12.60</u>
Net Smelter Return (per ton of concentrate)	= \$761.60
Brokers Fee as argued by the Forest Service (per ton of concentrates)	= <50>
Transportation (per ton of concentrate)=	< 6>
Mining and milling costs (\$40 per ton ore)(5:1 concentration ratio)	= <200>
Net Profit per ton of concentrate	= \$505.60
Net Profit per ton of ore (5:1 concentration ratio)	= \$101.12

(Shiny Rock SOR at 12-13).

At 3,000 tons of production, according to Dr. James, Shiny Rock's net profit would be \$303,360, and at 6,000 tons of production, its profit would be \$606,720. Shiny Rock concludes that an "ore body which contains reserves which can produce a net profit of \$300,000 to \$600,000 and employ four people for two to four years is not so 'small' that it does not constitute a discovery" (Shiny Rock SOR at 13).

Shiny Rock also takes issue with Judge Morehouse's conclusion that the "milling of the ore is problematic, having never been attempted at the present mill." Id., quoting Judge's Decision at 11. According to George Atiyeh, President of Shiny Rock, the copper ore from the Santiam No. 1 mine could be as "easily milled at the Starvation mill as is ore from the Ruth and Morning Star mines" (Shiny Rock SOR at 15, see Tr. 1487). Moreover, Dr. James testified that running the ore from the Santiam No. 1 mine through the Starvation mill as it presently stands would require "virtually no changes in the mill" (Tr. 2375). Shiny Rock asserts that none of the government's experts "offered any testimony in contradiction to the testimony of Mr. Atiyeh and Dr. James with respect to the amenability of processing copper ores from the Santiam 1 through the Starvation mill" (Shiny Rock SOR at 17). Further, Shiny Rock argues that the fact that the ore from the Santiam No. 1 mine has never been processed at the Starvation mill "is not an appropriate legal basis for the finding of a lack of discovery on the Santiam 1." Id.

In its reply to Shiny Rock's SOR (FS Reply), FS disputes Shiny Rock's assertion that "[o]ver a mining width of three feet, the weighted average of sample assays taken by Forest Service Mineral Examiner Shirley, Tim Hall

(a geologist retained by Shiny Rock), and Dr. James showed a grade of 5.98 percent copper and 1.84 ounces of silver per ton" (Shiny Rock SOR at 10). Rather, FS argues that the weighted average of the samples taken by Hall and James is 4.7 percent copper and 1.37 ounces of silver per ton over a mining width of 2.5 feet, 3.92 percent copper, and 1.14 ounces of silver per ton over a mining width of 3 feet, and 2.94 percent copper and 0.86 ounces per ton over a 4-foot mining width (FS Reply at 15). FS concludes that Shiny Rock "overstates the grade of the mineral on this claim" (FS Reply at 16).

FS asserts, without providing any supportive analysis, that Dr. James' assessment that the Santiam No. 1 ore could produce a concentrate containing between 30 to 35 percent copper "was fabricated \* \* \* out of thin air" (FS Reply at 17). In any event, argues FS, "the high costs of mining and milling plus standard smelter and transportation charges preclude any possibility of profit regardless of the possible higher concentrate grade." *Id.* FS proposed to "duplicate" Shiny Rock's calculations using "more realistic figures based on the evidence introduced at the hearing" (FS Reply at 20). FS insists that the true broker's fee is \$89 per ton of concentrate (see Exh. G-48), not \$50 as claimed by Shiny Rock (see Exh. G-47). Below are FS' further assumptions and its calculations:

Contestant will assume that the copper content of the concentrate is 25% as assumed in Mr. Atiyeh's hypotheticals and shown to be the highest concentrate grade from past operations (p. 186 of appendix to Feasibility Study), that the final copper and silver grades over a 3' mining width, based on all the samples and after applying the appropriate dilution factors, are 2.53% copper and .58 oz./ton silver, that the mining and milling costs of \$49.40 per ton as estimated by Mr. Harelson are increased by contestee's assumed 5% inflation to \$51.87 per ton of ore and that the copper price has risen to \$1.25 per pound as suggested by contestee on p. 19 of its brief. Contestant will also disregard ocean shipping costs.

Amount of Cu/ton (25% x 2000 lbs)	= 500 lbs.
Less slag loss (1.2% x 2000 lbs)	= <24> lbs.
Net of paid copper	= 476 lbs.
Gross value Cu in concentrate	
(476 lbs x \$1.25)	= \$595.00
\$80/ton treatment charge	= <80.00>
\$0.09/pound of Cu refining cost	
(\$.09 x 476)	= <42.84>
Paid value of Ag in concentrate	
(90% x 5.73 oz. x \$7.00)	= <u>\$36.10</u>
Net Smelter Return (per ton of concentrate)	= \$508.26
Brokers fee as argued by the Forest	
Service (per ton of concentrate)	= <\$89.00>
Transportation (per ton of concentrate)	= < 6.00>
Mining and milling costs (\$51.87 per ton ore)(9.88:1 concentration ratio)	= <\$512.47>

Net loss per ton of concentrate = \$ 99.21  
 Net loss per ton of ore  
 (9.88:1 concentration ratio) = \$10.04

(FS Reply at 20-21.)

For purposes of the following calculation, we will accept all of FS' assumptions except the 25-percent concentration ratio. Instead, we will substitute Shiny Rock's 30-percent figure, keeping in mind that FS argues that "the high costs of mining and milling plus standard smelter and transportation charges preclude any possibility of profit regardless of the possible higher concentrate grade" (FS Reply at 17). The following calculation demonstrates the error in this argument:

Amount of Cu/ton (30% x 2000 lbs) = 600 lbs.  
 Less slag loss (1.2% x 2000 lbs) = <24> lbs.  
 Net of paid copper = 576 lbs.  
 Gross value Cu in concentrate  
 (576 lbs x \$1.25) = \$720.00  
 \$80/ton treatment charge = <80.00>  
 \$0.09/pound of Cu refining cost  
 (\$.09 x 476) = <42.84>  
 Paid value of Ag in concentrate  
 (90% x 5.73 oz. x \$7.00) = \$36.10  
 Net Smelter Return (per ton of  
 concentrate) = \$646.26  
 Brokers fee as argued by the Forest  
 Service (per ton of concentrate) = <\$89.00>  
 Transportation (per ton of concentrate) = <6.00>  
 Mining and milling costs (\$51.87 per  
 ton ore)(9.88:1 concentration  
 ratio) = <\$512.47>  
 Net profit per ton of concentrate = \$34.09  
 Net profit per ton of ore  
 (9.88:1 concentration ratio) = \$ 3.23

Shiny Rock points out that the price of copper on January 7, 1988, was \$1.53 per pound, as compared to the \$1.25 figure assumed by FS in its Reply brief. If we substitute this \$1.53 figure in the above calculations, we arrive at a net smelter return (per ton of concentrate) of \$794.54, a net profit per ton of concentrate of \$187.33, and a net profit per ton of ore of \$80.62.

According to Dr. James, there are a number of Pacific Rim markets available for copper concentrate production from the Santiam No. 1 mine (Tr. 2431-2438). He identified two brokers who acquire small lots of copper concentrates for shipment to Pacific Rim smelters, as well as one seller of copper concentrates to Pacific Rim smelters. Id. Pointing out that Dr. Grant was unaware of the availability of such a market (Tr. 321-22), and that "Mr. Harelson wasn't even aware of any small mines" (Tr. 671), Shiny Rock asserts that "such a lack of knowledge undoubtedly infected Dr. Grant's and Mr. Harelson's analysis of the Santiam No. 1 mine" (Shiny Rock Posthearing Response at 119).

In its SOR, Shiny Rock points out that Dr. Grant "did not dispute the ability to sell the concentrate, he simply disputed the economics of such a sale based on 1986 copper prices" (Shiny Rock SOR at 18). He indicated that the problem with the Santiam No. 1 claim was the price of copper (60 cents per pound), not the lack of a market (Tr. 319). We have noted that as of January 7, 1988, the price of copper was \$1.53 per pound. This fact, when considered in the context of Dr. Grant's testimony regarding the prudent man and marketability rules, leads us to conclude that there is a reason-able prospect that Shiny Rock can mine, remove, and market the Santiam No. 1 copper at a profit. Dr. Grant testified that because of the "very depressed copper situation," he would "hold the Santiam at this time" without expending further sums on exploration (Tr. 148). On cross- examination, he reiterated his position that while he did not believe the Santiam No. 1 was economic at the then depressed prices, he would certainly keep it for higher prices (Tr. 319).

In United States v. Foresyth, 100 IBLA 185, 210, 94 I.D. 453, 467 (1987), the Board stated that "[o]ne of the most common means of demonstrating what a 'prudent man' would do is through the testimony of expert witnesses who have examined the property and express their opinions, as experts, that the evidence supports a determination that further development is warranted." As noted, Shirley and Holmgren concluded in their 1962 report that the Santiam No. 1 was a valid claim, and Dr. James testified at the hearing to the same effect. Dr. Grant's estimates of quality and quantity of ore on the Santiam No. 1 claim were somewhat lower than the other experts, his estimate of costs of mining and milling the ore were somewhat higher, and his predictions as to the prices at which copper could be marketed were somewhat lower. Given the evidence in the record which runs contrary to Dr. Grant's estimates, we must reverse Judge Morehouse. We are guided in this case by the Board's ruling in In re Pacific Coast Molybdenum Co., 75 IBLA 16, 29, 90 I.D. 352, 360 (1983):

"Present marketability" has never encompassed the examina-tion of either cost or price factors as of a specific, finite moment of time, without reference to other economic factors. Rather, the question of whether something is "presently marketable at a profit" simply means that a mining claimant must show that, as a present fact, considering historic price and cost factors and assuming that they will continue, there is a reasonable likelihood of success that a paying mine can be developed.

Shiny Rock need not demonstrate, as a matter of certainty, that it can mine the Santiam No. 1 at a profit. As the Ninth Circuit stated in Barton v. Morton, 498 F.2d 288, 291 (9th Cir. 1974), "[r]oom remains after discovery of the mineral deposit for application of the principle that the claimant need only show a reasonable prospect that a profitable mine will be developed. The margin between a valuable mineral deposit and a profitable mine may be substantial."

Applying these basic rules to the Santiam No. 1 claim, we conclude, based upon the record, that Judge Morehouse erred in ruling that claim to be invalid. The record supports the conclusion that Shiny Rock has demonstrated that there is a reasonable prospect that it can mine, remove, and market the Santiam No. 1 mineral deposit at a profit.

The Morning Star Mining Claim

Again as an initial matter, we will set forth the evidence pertaining to the Morning Star mining claim as summarized by Judge Morehouse:

Exhibits R-17H and G-2 are plats of the claims at issue and show the relative positions of those claims, the patented claims, the millsites and the general area of numerous other unpatented claims. The Morning Star is approximately a quarter of a mile east of the Ruth mine (Ruth No. 1 and 2). It was initially developed in the mid-1930's along with the development of the Ruth mine. H. L. Gage in his 1941 report appeared to include the claim as part of the Amalgamated group, stating that the vein "is said to have been traced over 2,000 feet on the surface. One 400 foot drift shows that the average width of the vein approaches 4 feet carrying up to 16 percent zinc" (Exh. R-28, p. 14). It is doubtful whether any real reliance can be placed on this statement since the Morning Star is not mentioned by name. However, Shirley and Anderson in their January 5, 1962, examination (Exh. R-16B, p. 19, 20) report:

Within this claim is a drift (see attached map). The map shows the stope on the ore-shoot. This stope is timbered and permits examination of the back (top) where the ore-shoot is well developed. The ore is mainly galena and sphalerite (lead and zinc sulphides). This vein is well exposed on the surface 340 feet above the drift where the strike corresponds to that in the drift. In the first surface cut the structure is 20 inches wide, and maybe wider, containing massive and vuggy quartz with heavy sulphides. Sample Morning Star "A" was cut over the 20-inch wide. The assay results follow:

<u>Sample</u>	<u>Gold</u>	<u>Silver</u>	<u>Lead</u>	<u>Copper</u>	<u>Zinc</u>	<u>Value</u>
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Morning Star						
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"A"	None	None	4.1%	0.60%	7.2%	\$32.00
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The second surface cut is approximately 200 feet south and 145 feet higher than the first cut. The mineralization and alteration are very similar though more narrow in all respects (see Photo No. 32). The strike of the vein in this cut is N. 31~ W. and the dip is 78~ W. Channel sample A-61-14 was taken across the vein width of 8 inches. Pittsburg Testing Laboratory assayed the sample with the following results:

<u>Sample</u>	<u>Gold</u>	<u>Silver</u>	<u>Lead</u>	<u>Copper</u>	<u>Zinc</u>	<u>Value</u>
A-61-14	Nil	0.60 oz.	0.4%	.35%	2.50%	\$9.28

They concluded that the evidence available to them supported a discovery for the Morning Star.

Decker in his 1980 report noted that the vein on the claim was developed by an adit open for 320 feet. Evidently past that point the adit is caved, but has been reported to continue for several hundred feet. He report[ed] a vein average of .68 percent copper, 9.35 zinc, 2.45 percent lead, 1.54 ounces per ton silver and nil gold. He also took two samples from a surface cut that exposed the vein which assayed at 6.7 percent and 15.4 percent zinc, 3.45 percent and 3.75 percent lead, .535 percent and 1.15 percent copper.

In 1982, Dr. Grant sampled the Morning Star accompanied by a George Atiyeh [President of Shiny Rock]. He stated that the vein is exposed in the discovery adit for a distance of 90 feet and extended into a partially caved stope. Because the stope was unstable, he was unable to take samples from that area, but he did cut two samples from the vein that had a weighted average of 2.10 percent zinc, .6 percent lead, .027 percent copper, .2 ounce to the ton silver and nil gold across an average width of 3.7 feet. He noted the existence of an ore dump on the claim and calculated an inferred tonnage reserve of 7,280 tons.

Mr. W. H. Harelson, a consulting mining engineer, employed by the Forest Service, evidently relying on Dr. Grant's samples, made the statement in his report that the Morning Star reserves have grades too low to justify the considerable expense to outfit these adits for production (Exh. G-30). Also, it should be noted that in most of his examinations Dr. Grant was accompanied by Daniel G. Avery, a mining engineer employed by the Forest Service, who relied on all of Dr. Grant's sampling and agrees completely with Dr. Grant's conclusions and inferentially with Mr. Harelson's conclusions regarding market data since Dr. Grant testified that he relied on this same data supplied by Mr. Harelson. Both Dr. Grant and Mr. Avery testified that in their opinion a reasonable man would not expend his time and resources in developing this claim.

Dr. James in his 1985 examination took a sample approximately 2-½ feet across the vein near the stope area of the Morning Star adit which assayed at 8.45 percent zinc, 1.4 percent lead, .55 percent copper, 1.73 ounce per ton silver and .005 gold. He noted that Mr. Hall had taken a sample from the vein closer to the portal of the adit which he was able to identify by markings left by Mr. Hall which assayed at 8.45 percent zinc, 6.8 percent lead, .765 percent copper, .8 ounce per ton silver and nil gold. In addition, he took a dump sample from material that had been moved from the Morning Star dump to the mill dump on the Starvation millsite which assayed at 4.7 percent zinc, 1.3 percent lead, .24 ounce per ton silver and .16 percent copper. He also noted that approximately 400 feet up the gulch above the adit there was a small dump rich in sulfides. A sample from this dump assayed at 13 percent zinc, 3 percent lead, .415 percent copper and 1.24 ounce per ton silver. He appears to agree with Decker who estimated a minimum of 6,250 tons of ore grading at 6.6 percent zinc,



.49 percent lead, .24 percent copper and .63 ounces per ton silver. He testified that because the Morning Star ore could be observed from three sides, he believed the claim was economic, considering the historic market factors and that a prudent man would be able to invest his funds with a reasonable expectancy of developing a paying mine. He noted that this opinion was partially based on the existence of the mill on the Starvation millsite which had concentrated ore from the dump at the Morning Star and from the Ruth mine.

(Decision at 11-14).

Judge Morehouse stated that "[a]s in the case of the Santiam No. 1, I think the question of validity of the Morning Star claim is a very close one." Id. at 14. He concluded, however, that Shiny Rock had overcome the Government's prima facie case of invalidity. He emphasized the proximity of the Morning Star to the Ruth Mine, as well as the existence of the mill at the Starvation millsite. He was particularly impressed with Mr. Harelson's testimony that "it would be reasonably prudent of Shiny Rock Mining Corporation to continue to hold onto these properties with the expectancy that within the foreseeable future, it would have a paying mine on its properties given his estimation of future prices." Id. He felt that "[w]hile the above question may not contain all of the 'magic' words required by the reasonable man test, it certainly indicates a positive regard for the expectations of this mine." Id.

In its SOR, FS complains that "Mr. Harelson was not asked the prudent man question," stating that "[i]t is quite reasonable to say that in view of the vast amount of money that had been spent on the claims, Mr. Harelson would advise the owner of the claims to hang on to them and not abandon them, but Mr. Harelson did not recommend that the owners spend any more money on this particular claim" (FS SOR at 32).

FS challenges Judge Morehouse's conclusions that the Morning Star and the Ruth mines, as well as the three millsites, are valid. FS engages in a fairly detailed examination of Judge Morehouse's decision as it relates to the Ruth and Morning Star claims, pointing out what it perceives to be numerous errors in his summary of the evidence. FS concludes that he "did a very cursory review of the mass of evidence introduced in this hearing. He referred to only some of this evidence in his decision and made some obvious mistakes in his recitation of the evidence" (FS SOR at 49-50). A bit more specifically, FS argues that Judge Morehouse "has misinterpreted the Decker report, he has not referred to all the samples that were taken on the Morning Star, he has not taken cognizance of the narrow width of most of the samples, of the reasonable width a miner would have to work in and of the probable costs" (FS SOR at 33). FS concludes that Judge Morehouse misapplied the prudent man rule.

Shiny Rock correctly asserts that the Board's appraisal of Judge Rampton's decision in Foresyth could as well be applied to Judge Morehouse's evaluation of the evidence with regard to the Morning Star and the Ruth claims:

Many of the arguments made by the Forest Service in its statement of exceptions to the recommended decision and brief are directed to the weight Judge Rampton gave to the evidence when making a determination as to whether the preponderance of the evidence presented by the parties supported a finding that there had been a valid discovery on the various claims. We note that had there been no dispute regarding the interpretation of data, the meaning of geologic evidence, and the existence of a market for the mined product, there would have been no need for a hearing before an administrative law judge. There is also no question that the parties continue to disagree regarding these issues.

100 IBLA at 253, 94 I.D. at 491.

For the reasons set forth below, we reject FS' arguments regarding the Morning Star claim. In its SOR, FS examined the Morning Star and the Ruth claims in terms of the criteria set forth in Foresyth for determining whether a mining claim is valid (FS SOR at 45-50). In its reply, Shiny Rock engages in a rebuttal Foresyth analysis. Shiny Rock emphasizes that "[b]ecause of the common variety problem involved in Foresyth, that case is, in many ways, distinguishable from the instant case," and that In re Pacific Coast Molybdenum Co., supra, "presents a more specifically instructive case because the mineral at issue there, molybdenum, suffers from the same price volatility as do the gold, silver, zinc, lead and copper at issue in these proceedings" (Shiny Rock Reply at 30). However, Shiny Rock agrees that "the Foresyth case discusses at length all of the criteria which could be applicable to determining the validity of the Ruth and Morning Star mining claims here at issue." Id.

With regard to the requirement, discussed in Foresyth, that "there must be a disclosure of mineral in place within the boundaries of the claim" (100 IBLA at 208, 94 I.D. at 463), we agree with Shiny Rock that "[t]here is not really any issue as to the existence or disclosure of mineral in place within the boundaries of the \* \* \* Morning Star mine" (Shiny Rock Reply at 33). Shiny Rock calculates that the Morning Star contains reserves of approximately 10,736 tons of ore (Shiny Rock Responding Posthearing Brief at 159). Dr. Grant reported a possible tonnage of 7,280 tons of ore in the Morning Star (Exh. R-17P (Grant Report at 10)).

Judge Morehouse's summary of the evidence regarding the Morning Star mine, which we set forth supra, contains significant detail about the assay results of samples taken by the various experts who testified at the hearing. In its posthearing response, Shiny Rock makes a point which is obvious from reviewing the figures set forth in Judge Morehouse's summary: "Dr. Grant's \* \* \* grades do not come close to matching anyone else's--Shirley and Anderson's, Dr. James, Mr. Hall, or Mr. Decker" (Shiny Rock Posthearing Response at 157). Shiny Rock explains the variance between the grades of Dr. Grant's samples and those of the other experts on the basis that "he was unable to sample much of the Morning Star vein because of the lagging on the back of the drift and the caving which did not permit him to sample the vein at the top of the stope." Id. at 158; see Tr. 106-07. The record supports Shiny Rock's conclusion that his "sampling is

probably not representative simply because he was unable to reach the ore grade portions of the Morning Star vein." Id.; see Exhs. G-31 and R-87.

Shiny Rock and FS disagree somewhat as to the costs of mining and milling the Ruth and the Morning Star ore. Dr. Grant cited mining cost estimates of between \$25 and \$75 a ton, and milling cost estimates of \$20 to \$25 a ton, for the Morning Star ore. According to Shiny Rock, its actual mining and milling costs incurred in 1985 were \$18.75 per ton and milling costs were \$17.38 per ton (Exh. R-59). Dr. James used an overall rule of thumb of \$40 per ton based upon his own independent evaluation of Shiny Rock's costs (Tr. 2340-42). Mr. Harelson used approximately the same overall mining and milling cost of \$40 per ton (Tr. 621-22; 1224; 2341-42). His final economic analyses used such a figure (Exhs. G-41 and G-43). Based upon the record, we think it reasonable to estimate that the mining and milling costs per ton of Morning Star ore to be \$40.

Dr. Grant testified that the Morning Star "would have the potential of developing into a, in my opinion, a narrower feature than the Ruth, but perhaps of significant grades but that would mean a considerable amount of exploration work to develop any kind of tonnage that would be acceptable for evaluation purposes" (Tr. 148). On the other hand, following a discussion with respect to the samples taken by numerous geologists of Morning Star ore, as well as the similarity of that ore with the Ruth ore and the proximity of the Morning Star to the millsites, Dr. James testified as follows:

Q. Well, do you have enough information to form an opinion as to the economic viability of the Morning Star claim?

A. Yes, I think so.

Q. Would you tell me what that opinion is?

A. Situated as it is, near an existing mill that is set up for that kind of ore, and being very similar to the Ruth 1 and 2 mine, or the Ruth Mine, as we call it, and having ore exposed on three sides in places, I believe the Morning Star is economic, or will be economic at prices now or in the near future \* \* \*.

Q. So a prudent man would be able to invest his funds with the reasonable expectancy of developing a paying mine there, also?

A. Yes, at least given the existence of the mill and the facilities and of development there, yes.

(Tr. 2360-61).

Shiny Rock introduced extensive evidence at the hearing to prove that there was a reasonable probability that it could market the concentrates from the Morning Star and the Ruth mines. Under the marketability test, a mining claimant "must show that, as a present fact, considering historic price and cost factors and assuming that they will continue, there is a

reasonable likelihood of success that a paying mine can be developed." In re Pacific Coast Molybdenum, 75 IBLA at 29, 90 I.D. at 360 (1983). As the Supreme Court stated in United States v. Coleman, 390 U.S. 599, 602 (1968), the landmark case on the subject of marketability:

Under the mining laws Congress has made public lands available to people for the purpose of mining valuable mineral deposits and not for other purposes. The obvious intent was to reward and encourage the discovery of minerals that are valuable in an economic sense. Minerals which no prudent man will extract because there is no demand for them at a price higher than the cost of extraction and transportation are hardly economically valuable. [Footnote omitted.]

Shiny Rock produces zinc and lead concentrates from the Ruth and the Morning Star mines. According to Dr. James, there is a world wide demand for zinc which is experiencing some growth (Tr. 2400; 2498-99; 2502; see Exh. R-88 (Engineering & Mining Journal (Mar. 1986) at 34-36)). Mr. Greenstein, owner of Acme Trading, a broker of metal concentrates to the Pacific Rim, said Japan has been a good market for lead and zinc concentrates (Tr. 2586). Acme Trading approached Shiny Rock to acquire Shiny Rock's 1985 zinc and lead concentrate production (Tr. 2588). Pacific Commercial acquired Shiny Rock's 1984 concentrate production (Tr. 2565). <sup>4/</sup> Atiyeh International, a company which trades primarily with the Peoples Republic of China and other Pacific Rim countries, has located and obtained markets for Shiny Rock's production (Tr. 2742-43).

The record is clear that the prices for saleable metals found on the mining claims at issue were extremely depressed in 1985 (Tr. 383). The Engineering & Mining Journal (Mar. 1986) commentaries indicate that some of those prices are the lowest in the century or the lowest since the Depression (Exh. R-88). Based upon these low 1985 prices, FS contended that a profitable operation could not be anticipated on either the Ruth or the Morning Star claims. Shiny Rock counters that FS' analysis fails to "comply with the requirement that historical prices and trends be considered when determining the existence of a discovery under the Prudent Man Rule and Marketability Test," citing In re Pacific Coast Molybdenum, *supra* (Shiny Rock Responding Brief to Contestant's Statement of Reasons at 42). Shiny Rock Exhibit G-49 indicates that 1985 prices were significantly lower

<sup>4/</sup> FS argues that Shiny Rock's sale of concentrates to Pacific Commercial, Inc., was a sham (FS SOR at 12, 18). Judge Morehouse characterized this sale as "questionable" because "[a]t the time it [Pacific Commercial] was a subsidiary of Persis Corporation [the parent company of Shiny Rock] and payment to Shiny Rock required only an accounting transaction" (Decision at 22). We have reviewed the evidence regarding this transaction, and we conclude that there is no basis for characterizing it as anything other than an arms length transaction. As the Board said in Getty Oil Co., 51 IBLA 47, 50 (1980), "a parent corporation and its wholly owned subsidiary may enter into a valid contract." See also United States v. Weissman, 219 F.2d 837 (2d Cir. 1955).

than the average prices for 1980 through 1985. Shiny Rock makes the following comparisons:

For example, 1985 zinc was 40.36 cents per pound, while averaged zinc was 41.08 cents per pound; 1985 lead was 17.84 cents per pound, while averaged lead was 28.32 cents per pound. 1985 copper was 60.08 cents per pound, while averaged copper was 78.04 cents per pound; 1985 silver was \$6.14 per ounce, averaged silver was \$10.80 per ounce; and 1985 gold was \$317.29 per ounce, while averaged gold was \$400 per ounce.

(Shiny Rock Posthearing Response at 121).

In addition, Shiny Rock introduced Exhibits G-49 and G-52 (average prices and commodity inflation index, respectively) for the years 1935 through 1984 (the latest year shown on Exhibit G-52), calculating that the price of zinc has risen 968 percent, lead 609 percent, copper 902 percent, silver 1680 percent, and gold 1143 percent, and that the producers' price index has gone up approximately 750 percent. Under this scenario, only lead is the loser against inflation. Shiny Rock asserts that "Merritt's conclusions in his 1935 (R-5, page 2) and his 1937 (R-5, page 19) reports that a profit could be anticipated from the operation of the Ruth mine are more true now than then because general price and expense information indicates that prices have outstripped costs" (Shiny Rock Posthearing Response at 122).

Shiny Rock contends that "[i]t was obvious from the testimony of Dr. Grant and Mr. Harelson that neither of them understood the concept of the Prudent Man Rule as stated in Pacific Coast Molybdenum. All of their energies and testimony were directed to demonstrate that, as of prices existing in the summer of 1985, Shiny Rock's mining operations were not profitable" (Shiny Rock Posthearing Response at 129). Given that the minerals produced at Shiny Rock's mines are subject to "great price volatility," we will apply the prudent man rule in accordance with the considerations discussed in In re Pacific Coast Molybdenum, supra at 28, 90 I.D. at 359, set forth below:

While no prudent man would expend time and money to develop a mine where it is clear that there is no market for the mineral or the price that could be obtained is obviously less than the cost of production, the question of prudence becomes more difficult when the mineral involved is subject to great price volatility. Many minerals, including molybdenum, show marked price elasticity for both demand and supply fluctuations. Thus, either increased demand or decreased supply in the short term can often result in elevated prices which cannot be sustained over a long period of time. The same, however, is true on the downside.

As pointed out by Shiny Rock, the economic analyses performed by Dr. James, using average prices from 1980 through 1985, show "dramatic" differences from those of Dr. Grant and Mr. Harelson based on 1985 prices alone (Shiny Rock Posthearing Response at 74). Dr. Grant testified that

he believed that in order to make a profit the grade of zinc ore from the Morning Star and the Ruth mine would have to be somewhere between 9 and 10 percent (Tr. 378). He also testified that Shiny Rock's 1985 operations at the Ruth mine fifth level were in 9.32 percent zinc (Exh. G-43). We agree with Shiny Rock's observation that "even Dr. Grant's testimony demonstrates the actual existence, availability, and mined ore of a grade necessary to support profitable operations under 1985 depressed prices" (Shiny Rock Posthearing Response at 120-21).

Based upon the record, we affirm Judge Morehouse's ruling that Shiny Rock has demonstrated by a preponderance of the evidence that the Morning Star mining claim is valid.

#### The Ruth Mine

Judge Morehouse's summary of the evidence with regard to the Ruth mine is set forth below:

Development work on the Ruth vein was begun in the early 1930's when Mr. J. P. Hewitt acquired control of the Ruth group of claims and other properties in the area and formed the Amalgamated Mining Company. By 1935, approximately 1,500 feet of drifting and crosscutting had been developed on the 4th level and work was starting at the 5th level. In his 1935 report (Exh. R-5), William L. Merritt, a mining engineer, who spent a month at the mine performing a mineral examination, concluded that there was a commercial zinc deposit, and it needed only further development (particularly on the 5th level) to bring the mine into production. He conducted several subsequent examinations in 1937 and in 1938, took numerous samples and considered numerous samples taken by the mining company, and in a letter to Mr. Hewitt dated March 1, 1941, stated he felt that the reserve tonnage estimates of 315,000 tons of the present mine engineer was very conservative and, in his opinion, there was excess tonnage below the 5th level above 8 percent zinc. Based on his own assays as of 1937, the ore contained a weighted average of 7.96 percent zinc (Exh. R-5, at 28, 29).

In a report dated April 1941, prepared by F. J. Rosenberg, a mining engineer, it was noted that the 5th level of the mine had been developed by driving a crosscut of 793 feet to the vein and then drifting along the vein for 955 feet. Also, there had been two raises developed between the 4th and 5th level. He had reviewed the prior reports of Merritt and E.W. Lazell and, after considering his own sampling and the numerous samples taken by the mine, reached a weighted zinc average of 7.5 percent. In his report (Exh. R-3), he recapitulated the various ore blocks and arrived at a probable tonnage reserve of 196,382 at 7.5 percent zinc and a possible tonnage of 194,674 tons.

In 1943, the Bureau of Mines issued the War Minerals Report (Exh. R-1) which noted that approximately 5,000 feet of drifts, crosscuts and raises had been developed on five levels at the

mine and that there were probable ore reserves of 183,924 tons at 4.7 percent zinc. This ore had been developed on three sides. In addition, the report estimated a possible reserve of 100,000 tons. The report concluded that there are good possibilities of developing a considerable additional tonnage of ore.

In February 1962, Shirley and Anderson, Forest Service mining engineers, issued their report (Exh. R-16B, pp.14, 16) stating that they had reviewed the reports of Merritt and the Bureau of Mines which indicated a reserve of 315,587 tons, and, having examined all levels of the Ruth mine, including several examinations of the 5th level, they had no reason to doubt the reserve figures. They concluded:

Enough work was done to show that the Ruth vein has ore in place on the Ruth Nos. 1 and 2 claims, and this ore constitutes a discovery on each claim.

In 1972, all of the claims, patented \* \* \* and unpatented, were acquired by Shiny Rock, a wholly-owned subsidiary of Persis Corporation, a closely held company based in Hawaii. Thereafter, George Atiyeh spent considerable time, effort and money in the development of the Ruth mine. Inquiries were made to various engineering companies (Exhs. R-31, R-32, R-36) concerning metallurgical services, mine development and mill flow charts. In 1975, contestee contacted Mr. Gerald B. Hartley, a mining engineer of extensive experience, who is also a registered land and water surveyor. He has worked in a variety of a large and small mines over the past 60 years and is presently retired in a formal sense although he continues to do considerable consulting work. His advice was requested concerning the construction of a small concentrating mill; however, he advised the company to develop an adequate ore source before building a mill. He looked at the Santiam No. 1, but the winze was full of water. After looking at the Morning Star, he felt it was feasible to open the claim, but there would have been a great deal of work involved and he felt that the Ruth mine was an easier starting point. He reviewed the old reports and made the decision to rehabilitate the tunnel at the Ruth 5 level. Several miners were hired and the process of rehabilitating the shaft was commenced. He testified that the company also wanted advice concerning construction of the mill so arrangements were made for Mr. Atiyeh and several other individuals to travel to Nevada to visit small mills to become acquainted with the equipment and method of operation. He visited the mine again in 1976 and spent approximately 2 months on the Hewitt millsite supervising tunnel rehabilitation and mill construction. The Ruth 5 level was being cleaned out. The miners had a compressor and mucking machine and tracking had been relaid so that ore cars and a trammer could be used. It was obvious that the company was spending considerable funds in opening the mine and building the mill. In 1977, he received assays of concentrates that had been run through the mill. The zinc concentrate was good, but the copper content was a little high and he gave

some suggestions about modifying the mill operation. He next visited the property in 1980 for a very brief visit and returned to the mine in 1985. At the time the mill was being run by a Joe Webber and the two miners, Rick Streiff and Bart Smith, were starting two raises on the 5th level which he advised should be made into one big stope. The ore in the raise area is high grade, one sample he took was 15.05 percent zinc (Exh. R-91). In addition, he took four other samples from the raise area of 10.9 percent, 6.4 percent, 21.4 percent, 13 percent zinc, respectively (R-92, samples 1-4). Moreover, there were indications of a series of high grade lenses in the vein. He felt that the mill was a fairly efficient small operation that could be run by one man. It produced a good concentrate that, in his opinion, could be sold. It was his overall view that a reasonable man would spend his time and resources in continuing to develop the Ruth mine with a reasonable expectation of making a profit.

In the latter part of 1982, Dr. Grant examined the Ruth mine, issuing his report in early 1983 (Exh. R-17E). He took a series of samples (see R series samples on Exh. G-11) and reached the conclusion that there was an accepted indicated reserve on the Ruth vein above the 5th level of 158,042 tons of 4.2 percent zinc. He testified that this generally agreed with the War Minerals Board Report and that he generally accepted their figures. He stated that he relied on Mr. Harelson's figures regarding concentration ratios and market information and that, everything considered, it was his opinion that a reasonable man would not expend his time and resources in developing a profitable mine. Dr. Grant returned in September and October 1985 to sample the high grade lenses that had been exposed. The zinc weighted average of these samples ran 15.2 percent (Exh. R-18, see [Shiny Rock] samples plotted on G-11). He estimated there were probably 390 tons of this material diluted somewhat above the 5th level and a similar amount of probable tonnage below the 5th level which could be projected based on his experience of ore lenses as they exist in nature. In addition, he acknowledged existence of the beginning of another lense some distance toward the portal from the present raises and stated that these lense formations could well indicate a lenticular structure along the entire vein. Nevertheless, his reasonable man opinion was unchanged.

Mr. William H. Harelson, a mining engineer employed by the Forest Service, inspected the mine area in the summer of 1985 and prepared a report (Exh. G-30) in which he concluded that the operation would be uneconomic at present metal prices. It appears that he did no sampling of his own but relied on the samples taken by Dr. Grant and assay values contained in other reports. He observed the mill in operation on one day. He has spent most of his professional life working for a large corporation on a large disseminated ore deposit and does not have much experience with small operations. During his testimony he came forth with a series of complicated and bewildering mathematic



equations concerning concentration ratios that were not comprehensible. It is recognized that this is a difficult subject, but in any event I can give little weight to his testimony in this area. He also prepared economic summaries (Exhs. G-35, G-41, G-42, G-43) which either contain errors in allocating transportation costs to raw ore when said costs should be allocated to the concentrates, or again are so bewildering or abstruse as to be un-understandable. Nevertheless, he did state that he believed that commodity prices would be rising and, as noted above, agreed with the statement "it would be reasonably prudent of the Shiny Rock Mining Corporation to hold onto these properties with the expectancy within the foreseeable future it would have a paying mine on its properties given your estimation of what likely future prices you are going to see."

Dr. James examined the Ruth mine in the summer of 1985. He noted that hundreds of samples had been taken by the Bureau of Mines, Merritt and Rosenberg, and that there were substantial indicated reserves indicated by the prior reports and by Dr. Grant. He took five samples from the Ruth 5 level which assayed at 2.15, 9.95, 10.6, 17.9, 16.2, 13.3 percent zinc. The two highest samples were taken from the raise area being mined in the summer of 1985. He had several conferences with Mr. Atiyeh and arrived at an approximate cost of \$40 per ton raw ore for mining and milling. He noted that the examination of the tailings samples indicated low losses and estimated an average concentration ratio of 20 to 1 for lead and 4.43 to 1 for zinc. He noted that the transportation costs per ton of concentrate to Cominco Smelter in British Columbia (approximately 650 miles) would be about \$60 per ton, but the only economic sale of the concentrates, at least at today's prices, would be to a small lot broker who sold concentrates to Pacific rim smelters. He stated that the Cominco Smelter smelts ore from mines that run from 5 to 8 per-cent zinc; although some mines run as high as 11 percent zinc. He testified the only way to mine at the present time to achieve a low zinc concentration ratio and sell the concentrate at a profit would be to mine selectively from the high grade lense that had been exposed at the No. 5 level. He also testified regarding the beginning of another high grade lense nearer the portal. It was his opinion that a reasonable man would expend his time and resources with the reasonable expectation of developing a paying mine.

George Atiyeh testified concerning the Shiny Rock operation since it acquired the properties in 1972. He reviewed the various reports on the claims and old mine records. The decision was initially made to open the Eureka 6 patented claim because of high gold assays, but the claim was in a difficult location and although they tried to open it by hand, they were not successful due to lack of operating funds. The company then began to develop a plan to open the Ruth mine. They salvaged some material from the old mill, sought advice from engineering firms, and then in 1975 retained Mr. Hartley who advised them first to open the

mine and develop ore reserves before putting the mill into operation. He testified that neither [he] himself nor any members of his family have any ownership interests in the Shiny Rock company or the parent company Persis Corporation.

In 1975 and 1976, the mill was built [on the Starvation mill-site] to process the ores from the Ruth mine. The mill operated from February through September 1977, and they shipped lead concentrates to ASARCO receiving \$4,478 and zinc concentrates to the Bunker Hill Smelter receiving \$16,313. The mill did not operate in 1978 because certain of the claims were under lease to AMOCO Corporation, but they maintained the shaft at the Ruth 5 level and attempted to get more financing. Between 1979 and 1983 some ore was removed from the Ruth 5 level and tested at the mill. During this time, AMOCO and Freeport Minerals Co. were drilling near the Santiam No. 1 claim. In 1984, the mill was in operation again, mainly using ore from the dumps at the Morning Star, the Ruth mine and the dump at the millsite. Futures contracts (Exh. R-46, R-47) were entered into with Pacific Commercial Corporation which was an import/export company, and pursuant to these contracts, approximately 8 tons of lead concentrate and 30 tons of zinc concentrate were sold at \$300 and \$368 per ton respectively. Shiny Rock received a total of \$13,694 from the 1984 production. In 1985, approximately 76 tons of zinc concentrate and 10 tons of lead concentrate was [sic] produced from approximately 550 tons of ore which came from different sources; some from the high grade material in the Ruth mine, some from the Morning Star dump and some from material at the millsite dump. This concentrate is presently under an Option to Purchase Agreement with Atiyeh International, Ltd., which paid \$2,000 for the option. The company is run by his cousin; however, his cousin has no connection with Shiny Rock or Persis Corporation. He computed a profit under this contract of approximately \$60 for the whole year. He ran a series of computer projections based on some of the old reports and the price paid by the Pacific Commercial contract for the 1984 concentrates and substantial profits were projected. He also projected returns based on average prices between 1980 and 1985. See generally, Exhibits R-64 through R-72. He believes at today's market (May 1986) the operation could break even or might even make a marginal profit. Regarding concentration ratio formulas, he fell into the same trap as Mr. Harelson, becoming mired in equations that defied solution. Finally, it was agreed by both parties that the best way to arrive at an approximate exact concentration ratio is to divide the concentrate produced into the number of head tons that produced it.

Allan Henderson is a forester employed by the Forest Service on the Detroit Ranger District. It is part of his duties to check on the various mining activities being conducted in the district, and in 1984, he visited the Shiny Rock millsite area and environs 57 times. These visits were documented by photographs and various notations (Exh. R-21). In 1985, he visited the area 51 times,

again documented by photographs and notations. It was his opinion that Shiny Rock's operation was not as extensive as claimed.

Joe Webber, a Shiny Rock employee, got the mill ready for production in 1984 and operated it in 1984 and 1985. He was at the mill practically all the time it was operating in 1984 and kept approximate daily log records. Sometimes the records were not kept contemporaneously, and he would go back and construct them from memory when these records were requested by George Atiyeh so that they could be entered in the corporation's computer. He inspected all of the photographs taken by Allan Henderson, together with the notations and conclusions drawn by Henderson, and he doesn't agree with them. They don't report an accurate picture of the mill operation in 1984. See Exh. G-44. The mill produced approximately 38 tons of concentrate in 1984. Before starting up the mill in 1985, they made improvements in the mill, putting in a variable speed control on the auger mechanism that controls the material coming from the fine ore bin, and they also modified the method of regulating the chemical input into the system. He generally ran the mill himself, but at times was assisted by the mechanic, Pat Brockhaus, and one of the miners, Rick Streiff. He kept a record of mill operations for 1985 (Exh. R-84). He received a lot of advice from Mr. Hartley concerning mill operations in 1985. The mill produced approximately 90 tons of concentrate in that year.

Rick Streiff testified that he has had some mining experience, and he and another miner did most of the work on the 5 level at the Ruth mine in 1985. He received considerable advice from Mr. Hartley. He kept a record of the work performed and submitted weekly reports to George Atiyeh (Exh. G-46). They had to rehabilitate a certain portion of track, the water ditch was completely plugged and the air lines had to be worked on. Hartley taught them how to use the drilling and blasting equipment. His best estimate is they took approximately 60 tons of ore from the first raise and 120 tons from the second raise. Approximately 130 to 140 tons of this material was hauled to the mill dump. The rest of the material stayed at the dump at the Ruth 5 level. He remained at the millsite all that winter and did maintenance on the millsites and was involved with various projects to get ready for the 1986 season. The roads were rehabilitated up to the No. 4 level and equipment was hauled up, and they planned the direction and footage of the proposed tunnel after the portal had been mucked out.

(Decision at 14-20).

Judge Morehouse concluded that FS had presented a prima facie case through the testimony of Dr. Grant that the Ruth mine is "not an economic operation at today's prices and, considering its history, has never been shown a truly economic operation." *Id.* at 21. However, he noted that Dr. Grant recognized that the Ruth mine has a strong vein system, and that

during his 1982 examination he was "unaware of the high grade lense structure at the 5 level." Id. 5/ Judge Morehouse emphasized that Dr. Grant's view that the Ruth mines were invalid was "based partially on the depressed price of zinc at the time of the hearing." Id. Due to such depressed prices, Judge Morehouse deemed the Ruth mine to be "a marginal operation." Id. at 22. Nevertheless, he ruled that Shiny Rock had "met its burden of overcoming the Government's prima facie case," and that the Ruth No. 1 and 2 claims were valid.

In its SOR at pages 33-45, FS examines Judge Morehouse's analysis of the Ruth mine in a somewhat detailed fashion. Much of FS' discussion of the Ruth claims takes issue with Judge Morehouse's judgment in emphasizing certain evidence, ignoring certain evidence, elevating one expert's opinion over that of another, and the like. Quoting again from United States v. Foresyth, 100 IBLA at 253, 94 I.D. at 491:

There is also no question that the parties continue to disagree regarding these issues. There are a few things that both parties will agree upon, however. Each side had ample time to prepare for the hearing. Each was well represented by competent counsel. Each had an opportunity to present evidence and vigorously cross-examine the opponent's witnesses. Each was afforded an opportunity to convince Administrative Law Judge Rampton that their respective arguments were correct and supported by the facts and that the opponents' were not. Neither party has alleged that the presiding Judge was predisposed or otherwise biased. Judge Rampton made his determination regarding the evidence as it applied to each element of a discovery. Our review of the exhibits and the transcript of the hearing leaves little doubt that the determinations of fact made by him are amply supported by the evidence and that his determinations were neither arbitrary nor capricious. Without taking into consideration the elements of a hearing which are not reflected in the written record, such as demeanor of the witnesses, the overall benefit of having been personally present at the time of the hearing, and the general "flow" of the hearing, we have no difficulty understanding how Judge Rampton reached his conclusions regarding the weight and preponderance of the evidence. Thus, even though the Forest Service continues to object to Judge Rampton's findings regarding which of the factual contentions were supported by the preponderance of the evidence presented to him, we do not find that these arguments overcome his findings.

FS is rather unspecific in applying the Foresyth criteria to the Ruth claim. Of importance, however, is FS' recognition "that there is a sizable

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5/ Daniel G. Avery, an FS witness who assisted Dr. Grant during his 1982 examination of the Ruth mine, acknowledged that they missed the substantial high grade portion of the Ruth vein mined by Shiny Rock in 1985. He stated that during the re-examination in 1985 neither he nor Dr. Grant undertook any measurements to determine the size and quantity of ore contained in that portion of the vein (Tr. 429-32).

block of mineral in place on the Ruth 1 and 2 claims" (FS SOR at 46). Dr. Grant's estimate that there are approximately 155,000 tons of 4.5 percent zinc grade ore in the Ruth mine is low by comparison with the other reports. In his report, William L. Merritt stated that 315,000 tons of ore on the Ruth mine was a conservative estimate (Exh. R-5). In his 1941 report, F. J. Rosenberg estimated the probable tonnage reserve at 196,392 and a possible tonnage reserve of 194,674 (Exh. R-3). The 1943 Bureau of Mines' War Minerals Report estimated probable ore reserves at 183,924 tons and a possible reserve of 100,000 tons (Exh. R-1). Shirley and Anderson agreed with the reserve figure of 315,587 tons (Exh. R-16B).

Based upon Dr. Grant's testimony, FS argues that the Ruth 1 and 2 claims contain "a low grade zinc and lead deposit" (FS SOR at 46). A review of Judge Morehouse's summary of the evidence as it relates to the ore reserves and grades in the Ruth claims supports the following observation:

Out of all of these examinations, two primary camps have been established regarding grades. First, there is the Grant/War Minerals camp, which grades the Ruth mine at an overall average of approximately 4.5% zinc. Secondly, there is everyone else, including the 1962 Forest Service mineral examiners, who give the Ruth an overall grade of approximately 8% zinc. However, \* \* \* even the Grant/War Minerals camp has been forced to admit to substantial, high grade areas of the Ruth mine of 11-plus percent zinc which can support small mining operations such as those conducted by Shiny Rock.

(Shiny Rock Posthearing Response at 136).

Shiny Rock explains that in reaching his estimate, Dr. Grant "eliminated all of the ore reserves below the fifth level of the mine." Id. at 146; see Exh. G-14, at 11. However, during testimony, Dr. Grant confirmed the likelihood of other occurrences of high grade ore in the Ruth, particularly below the fifth level (Tr. 89-90, 385). Further, Shiny Rock notes that the War Minerals report stated that there are "on the fifth level, favorable indications that ore persists at depth and this includes a more uniform mineralization, higher grade ore and more sharply defined walls than on the higher levels" (Shiny Rock Posthearing Response at 147, quoting Exh. R-1 at 12).

In their January 5, 1962, report, FS engineers Shirley and Anderson conclude that "sampling of the various ore-blocks indicate a reserve of 315,587 tons with a value (based upon Zn-4.5 cents, Pb-4.9 cents, Cu-10.25 cents, Ag-70 cents, Au-\$35) of \$3,173,537.00" (Exhs. G-10 and R-16B). In his mineral examination, Shirley concludes that the Ruth mine contained an overall average of 7.97 percent zinc, 1.108 percent lead, 0.361 percent copper, 0.0333 ounces of gold, and 0.404 ounces of silver (Exh. G-10). Shiny Rock calculates that using average 1980 through 1985 prices from Exhibit G-49 and gold at \$400 per ounce, i.e., zinc at 41.08 cents, lead at 28.32 cents, copper at 78.04 cents, and silver at \$10.80, the gross value of the ore in the Ruth mine is \$96.12 per ton,

or an overall value of \$30,334,222.44 (Shiny Rock Posthearing Response at 137). 6/

Shiny Rock engages in an economic analysis similar to that performed with reference to the Santiam No. 1 claim, discussed and set forth supra. Assuming 1980 through 1984 average prices, the grade for the Ruth mine established by Rosenberg, Merritt, and Shirley in their respective reports, and Harelson's concentration ratio of 10 to 1, Shiny Rock makes the following calculation:

Net recoverable tonnage:

315,587 tons times 80% (10% dilution plus 10% mill loss)  
equals 252,470 tons

Basic smelting charge: (\$CAN 67.00 x .7 exchange rate) = 46.90/ton of  
concentrates, divided by 10 equals \$4.69/ton

Smelter payments:

Zn: 7.96% x \$.418 x .85 x 20	\$ 56.56
Cu: [(3.61% x 20 - 2) x \$.7804 x .975] - \$.25 =	3.72
Pb: (1.108% x \$.2832 x .95 x 20) - \$.083 =	5.88
Ag: .404 x \$10.80 x .97 x .93 =	3.94
Au: .0333 x \$400 x .98 x .93 =	<u>12.14</u>

Total value per ton paid by smelter \$ 82.24

Costs:

Mining and milling per ton \$40  
Transportation \$.60  
Smelter charge \$4.69  
Total costs \$45.29

Total Payment from Smelter: \$82.24 x 252,470 = \$20,763,133

Total Mining Cost: \$45.29 x 315,587 tons = 14,292,935

NET PROFIT FROM RUTH \$ 6,470,198

(Shiny Rock Posthearing Response at 148-49). 7/

6/ Shiny Rock states that the zinc ore from 1985 operations at the Ruth mine "averaged greater than 11 percent \* \* \*, with reasonable silver and copper credits" (Shiny Rock Posthearing Response at 126). According to Shiny Rock, "[s]imilar zinc/lead mines, such as Cominco's zinc mine in British Columbia, operate at between five to eight percent zinc, some lead, and an insubstantial silver credit. T 2329-2330. ASARCO's zinc lead mine at Leadville, Colorado runs approximately 6% to 7% zinc, producing similar concentrates. T 2534" (Shiny Rock Posthearing Response at 126).

7/ Additionally, Shiny Rock presents "various smelter schedule calculations pertaining to various ore blocks in the Ruth mine, showing the likelihood of profitability as to different grades and at different prices"

In its posthearing response, Shiny Rock considered the economics of mining and milling the ore from the Ruth mine together with the economics involved in mining and milling the ore from the Morning Star mine. Those economics have been discussed supra in connection with the Morning Star mine. We conclude, as with the Morning Star mine, that Shiny Rock has proved by a preponderance of the evidence that there is a discovery of a valuable mineral deposit on the Ruth mine, and that Judge Morehouse properly declared it valid.

[3] Shiny Rock maintains that the "independent mine requirement" not only justifies treating the Ruth No. 1 and Ruth No. 2 mines as a single mine, but also under that concept, the Ruth and the Morning Star mine may be properly be considered as a group. Shiny Rock states that "[a]lthough the Morning Star is not immediately contiguous to the Ruth No. 1 and Ruth No. 2, the contiguity of the three claims is established by two unpatented mining claims owned by Shiny Rock which lie between the Ruth mine and the Morning Star mine" (Shiny Rock Responding Brief to Contestant's Statement of Reasons at 50-51). Judge Morehouse stated that considering the proximity of the Morning Star mine "to the Ruth Mine and the existence of the mill at the Starvation millsite, I must conclude that contestee has met its burden in showing this to be a valid claim" (Decision at 14).

Because we rule in this decision that the Morning Star and the Ruth mines each support a discovery, we need not reach this independent mine question. However, to the extent that Judge Morehouse viewed the cases of the Morning Star and the Ruth claims to be weak due to market prices for the ore, he properly considered them in the context of Shiny Rock's overall mining operation. As stated in the concurrence in Cactus Mines, Ltd., 79 IBLA 10, 32-33 n.2 (1984):

While the proof of quantity and quality are often interrelated, a claimant must prove that a valuable mineral is actually present on each of the claims. Once mineral is demonstrated to be present, the proof of sufficient quality and quantity of mineral to warrant development can take into consideration the overall mining operation. There is little question that circumstances exist in which a group of mining claims containing low grade ore can support a mining operation, and thus demonstrate a discovery on each claim, even though taken individually the claims might not contain sufficient quantity ore of sufficient quality to support discovery.

See also United States v. Foresyth, 100 IBLA at 250, 94 I.D. at 489; cf., United States v. New York Mines, Inc., 105 IBLA 171, 191, 95 I.D. 223, 234-35 (1988).

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fn. 7 (continued)

(Shiny Rock Posthearing Response at 150). For example, according to these calculations, Shiny Rock could obtain net profits from the Ruth mine in the range of \$1,723,705 (Exh. R-65), or \$2,526,660 (Exh. R-75).

The Millsite Claims

Having found the Santiam No. 1, the Morning Star, and the Ruth mine claims valid, we now turn to a consideration of the three millsites against which FS filed contest complaints. In its contest complaint against the Starvation millsite, FS alleged (1) that the millsite was not being used or occupied for mining and milling purposes, and (2) that no source of ore had been shown for the mill. With respect to the Hewitt and the Poor Boy millsites, FS alleged (1) that the millsite was not being used or occupied for mining and milling purposes, (2) that no source of ore had been shown for the mill, and (3) that portions of the millsite are within an area which was withdrawn from appropriation under the mining laws effective December 8, 1964, and that the millsite had not been continuously used or occupied for mining and milling purposes for 10 years before that date. 8/

Judge Morehouse rejected FS' allegations, ruling that all three millsite claims are valid. Again, we begin our review of Judge Morehouse's ruling by setting forth his summary of the evidence regarding those claims:

The area encompassed by the present millsites were, prior to their location, covered by the Tennessee and Ivanhoe mining claims (Exh. R-17H). A map of the Amalgamated Mining Company properties prepared on August 9, 1934, shows development of the present day millsites that had occurred as of that date. The Starvation millsite was being used as a sawmill, and there are a number of buildings located on the area of the Hewitt and Poor Boy millsites (Exh. R-41). In 1935, the Forest Service issued a number of special use permits to the Amalgamated Mining Corporation covering an ore reduction millsite, sawmill site and settling tank site in the area of the millsites (Exh. R-17R). The Rosenberg Report (Exh. R-3) has a picture of the millsite area in 1941. There was another special use permit issued to Pacific Smelting and Refining Co., J.P. Hewitt, President, in 1947 for the purpose of constructing and maintaining an ore reduction mill, primary and finishing and crushing plants, bunkers, machine shops and tram road (Exh. R-17T). Mr. Alvin

8/ FS derives this 10-year period from 30 U.S.C. § 38 (1982), which provides:

"Where such person or association, they and their grantors, have held and worked their claims for a period equal to the time prescribed by the statute of limitations for mining claims of the State or Territory where the same may be situated, evidence of such possession and working of the claims for such period shall be sufficient to establish a right to a patent thereto under sections 21, 22 to 24, 26 to 28, 30, 33 to 48, 50 to 52, 71 to 76 of this title and section 661 of Title 43, in the absence of any adverse claim \* \* \*."

Or. Rev. Stat. § 12.050 (1983 Replacement Part), which was certified by Oregon's Secretary of State as being in effect in Oregon from 1953 through 1985, provides that "[a]n action for the recovery of real property, or for the recovery of the possession thereof, shall be commenced within 10 years" (Exh. R-17DD).



Sorseth testified that he was the District Ranger for the Forest Service at the Detroit District from 1955 to 1959 and would visit the claims and the area of the millsites four or five times a year. Mr. Hewitt and his wife lived there, and there were other cabins and living quarters for his help. In addition, there were shop buildings, old machinery and a water flume in the area. He never observed any active mining or milling in the area. Ralph McCurdy, the Forest Service District Ranger at the Detroit District from 1961 to 1965, testified that he visited the area of the millsites approximately 10 times during his tenure. Mr. Hewitt lived at the millsites. There were some small maintenance buildings and other people lived up there who performed maintenance work around the buildings.

In 1955, contests were brought against the Hewitt claims regarding surface rights and a number of claims were patented; Eureka No. 7, Eureka No. 8, and Eureka No. 13 in 1955; the Black Prince, King No. 4, and the Princess lode mining claims in 1957; and the Eureka No. 6 lode mining claim in 1958 (Exh. R-17I, R-17J, R-17K). George Atiyeh, who was born in 1948, testified that he was in the area off and on throughout his childhood. Mr. Hewitt lived on the Hewitt millsites [sic], and it was also used for storage of mining equipment. There were additional living quarters for miners, and there was a commissary and a garage. The Poor Boy millsite had a Pelton waterwheel, a cookhouse, a storage shed and a shed used for other equipment. The Starvation millsite had been used as a sawmill which is now gone and there was another bunkhouse there, an infirmary and a bathhouse.

Mr. Hewitt died in approximately 1970, and in 1972, contestee purchased all of the assets of the various corporations from the Hewitt estate. Development since that time has been mentioned above. Mr. Larry Raley, a Forest Service Ranger at the Detroit District between 1982 and 1984, testified that he visited the area approximately 114 times in 2 years. He doesn't have any mining experience, but he did see some core drilling by AMOCO near the Santiam No. 1 lode mining claim. He also said that he saw a lot of recreational activity and also maintenance and upkeep of the grounds. He was only on the area of the Starvation millsite twice during all this period.

In 1963, the State of Oregon passed a millsite statute. In 1964, there was a road withdrawal which would substantially affect the Hewitt and Poor Boy millsites if it is effective as to those claims. By letter dated July 17, 1967, Mr. Hewitt was advised by the Forest Service that "since your mill and camp at the influence [sic] of Battle Ax Creek and Opal Creek is already protected as mining claims, it would be unnecessary for you to file for this area as a millsite" (Exh. R-17Y). Thereafter, the Forest Service helped Mr. Hewitt lay out and locate the Hewitt millsite claim which was formally located in 1970 (Exhs. R-17AA, R-17BB, R-17CC).

The Starvation and Poor Boy claims were located by contestee in 1975.

(Decision at 22-24).

During the hearing, George Atiyeh testified as to the original cost of constructing the mill facilities on the three millsites, as well as with respect to improvements to the mill facility and additional structures constructed by Shiny Rock in the mid-70's (Tr. 1858-62; Exh. R-58). The ore reduction plant on the Starvation millsite was originally constructed in 1975-76 at a capitalized cost of \$49,629. In 1977, George Atiyeh suggested that an additional \$18,000 be capitalized with respect to the ore mill due to the costs of its development and testing in 1977 (Tr. 1862-63). However, Exhibit R-58 shows that only an additional \$1,524 was actually capitalized. Further improvements include the construction of a truck shop and a core shed on the Poor Boy millsite, the rehabilitation of the roof, foundation, and windows of the cook house on the Poor Boy millsite, aluminum roofs for all the buildings on the Poor Boy millsite, and a new operations center on the Hewitt millsite to replace the Hewitt residence destroyed by fire (Tr. 1858-62; Exh. R-58).

Judge Morehouse ruled, based on "all that has been set out above," that Shiny Rock had carried its burden of showing by a preponderance of the evidence that the Starvation millsite was in compliance with the millsite law, and accordingly, constituted a valid claim. In ruling that the Hewitt and the Poor Boy millsites are valid, Judge Morehouse provided the following discussion:

I conclude that contestee has met its burden by showing by a preponderance of the evidence that these claims have been used and occupied for mining and milling purposes and that they were so used for a period of 10 years prior to the withdrawal date. It is clear that there was not continuous active ore production and milling activities going on on the millsite area since the 1930's. However, the millsite area was the camp for Mr. Hewitt and other workers who performed exploration and assessment work on some 170 claims for a period of time far exceeding the 10 year statute. During this time a great deal of work had to be done and, in fact, as a result thereof, a number of claims were patented. Shiny Rock and its predecessors having used and occupied the millsites for more than 10 years prior to the withdrawal date may assert their locations without proof of recording and posting. U.S. v. Haskins, 505 F.2d 246 (1974). In fact, this position has already been recognized by Office of the Solicitor, Department of the Interior (Exh. R-17DD). Accordingly, I conclude the Hewitt and Poor Boy millsites to be valid.

(Decision at 24-25). 9/

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9/ Judge Morehouse declined to reach Shiny Rock's argument that its claims patented during the 1950's provide a source of ore to support the validity of the millsites, stating that he did "not believe it is necessary to

In its SOR, FS argues that Judge Morehouse erred in ruling that Shiny Rock and its predecessors had used and occupied the Hewitt and the Poor Boy millsites for mining and milling purposes for 10 years prior to December 8, 1964, when portions of those millsites were withdrawn for a road right-of-way, and that the millsites were not located until subsequent to that date. Shiny Rock points out that the road withdrawal would "take out a 400 foot strip right down the middle of the millsites. Within that 400 foot strip are all of the presently existing buildings and facilities" (Shiny Rock Posthearing Response at 25).

According to FS, "[t]he evidence is quite clear that there has been no \* \* \* continuous working. The [Hewitt] mill had collapsed. There is no evidence of any mining or milling activity between the late 1930's and 1976 when the present mill was built" (FS SOR at 54). FS argues that such "prolonged interruption of use makes a millsite subject to a later withdrawal," citing United States v. Cuneo, 15 IBLA 304, 81 I.D. 262 (1974).

[4] The patenting of nonmineral lands for lode millsites is autho-rized by 30 U.S.C. § 42(a) (1982), which provides for two classes of millsites. The first class is a dependent millsite which must be used or occupied by the proprietor of a lode mining claim for mining or milling purposes in connection with a lode claim with which the millsite is associated. The second class is an independent millsite which must have a quartz mill or reduction works on the land.

The Department has long held the position that an appurtenant mill-site "shall be patented, if at all, only simultaneously with the lode claim or claims to which it is appurtenant unless \* \* \* the lode claim should have been previously patented." Pine Valley Builders, Inc., 103 IBLA 384, 388 (1988), quoting Union Phosphate Co., 43 L.D. 548, 551 (1915), which in turn cites Eclipse Mill Site, 22 L.D. 496 (1896). In Union Phosphate Co., supra, the Assistant Secretary rejected an application for a millsite included within a patent application for lode claims which were found to be invalid, since the millsite was asserted to have been used and occupied only in connection with such invalid lode claims. See Charles Lennig, 5 L.D. 190, 192 (1886). We have already ruled that the Santiam No. 1, Morning Star, and Ruth mine lode mining claims are valid. The Hewitt, Starvation, and Poor Boy millsites may also be patented, provided that Shiny Rock has demonstrated by a preponderance of the evidence that it has used or occupied those millsites for mining or milling purposes in connection with those lode mining claims.

[5] At the end of FS' case, Shiny Rock moved for a directed verdict with respect to the millsites (Tr. 1303-06). While we conclude that FS established a prima facie case that the millsite claims were invalid, we

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fn. 9 (continued)

decide the question considering my former findings" (Decision at 25). We assume he was referring to his conclusion that the Ruth mine and the Morning Star lode mining claims are valid, and that Shiny Rock had used or occupied the three millsites in connection therewith. We do not think it necessary to address this issue for the same reason.

must further conclude, for the reasons discussed below, that Shiny Rock has met its "affirmative obligation to establish by a preponderance of the evidence that the challenged millsite claims are either used or occupied for mining or millsite purposes." United States v. Swanson, 93 IBLA 1, 21, 93 I.D. 288, 299 (1986).

Our review of the record bears out the accuracy of Shiny Rock's response to FS' basic allegation, i.e., that Shiny Rock has not used or occupied the millsites for mining and milling purposes:

[T]he government has in essence admitted the continuous use and occupancy of the millsite areas from approximately 1929 to the present. T 1184-1185. George Atiyeh testified that from the time he was born in 1948 until Mr. Hewitt's death in 1970, he frequently visited the millsites and observed both their occupation by Mr. Hewitt and his workers as well as the performance of mining and mine maintenance work by Mr. Hewitt and his work-ers during that entire period of time. T 1388-1390. Moreover, the Hewitt use and occupancy for mining and milling purposes is confirmed by the government's mineral examinations of 1962. A review of R-16B indicates that mineral examiners Shirley and Anderson acknowledged Hewitt's use and occupancy of the millsite areas as a support area for maintaining and developing the surrounding mining claims. This information was again confirmed by George Atiyeh. T 1409. Of course, the millsites were not formally located as millsites when Shirley and Anderson performed their mineral examinations because it was not until 1963 that Oregon passed a statute establishing the ability to formally locate a millsite.

It seems almost silly for the government to take the position that the millsites were not used and occupied for mining and milling purposes prior to December 8, 1964. In view of the information contained in the millsite patent applications (R-55) and the above information the Regional Solicitor for the Department of Interior rendered an opinion of title on March 31, 1983--before the instant contest proceedings were filed--with respect to this very issue. In that opinion, the Regional Solicitor indicates that Shiny Rock:

"[s]tates that the above lands were entered for mining and milling purposes in connection with mining claims in the early 1930's, and that the claimant or its predecessors have been in continuous and undisputed possession of the land since that time. Having so shown, the applicant has made proof of possessory right to the claim in accordance with the above statute [30 U.S.C. § 38], and has established a right to a patent pursuant thereto." R-17DD.

Additionally, the Regional Solicitor notes that Shiny Rock has otherwise complied with the requirements of 30 U.S.C. § 38 by showing continuous possession by its predecessors in interest

of the millsites in question for a period longer than the Oregon Statute of Limitations prior to December 8, 1964. *Id.* In a memorandum opinion of the Regional Solicitor dated April 8, 1983, the Regional Solicitor performs a more in depth legal analysis of the issues regarding use and occupancy predating the 1964 withdrawal. Of course, that memorandum to the state director of the Bureau of Land Management reaches the same conclusions as the formal title opinion of March 31, 1983. R-17FF. [Emphasis in original.]

(Shiny Rock Posthearing Response at 22-24). In his April 8, 1983, memorandum, the Regional Solicitor concludes not only that due to "continuous working of the mill sites" they "were excluded from the withdrawal for the Forest Service road," but also "the claimants have demonstrated the non-mineralization of the former lode claims and have entered and continuously used the land for mill site purposes. \* \* \* Therefore, it is appropriate to include the mill sites in the application for patent pursuant to R.S. § 2337 (30 U.S.C. § 42)."

In 1967, FS took the position that "since [Hewitt's] mill and camp at the confluence of Battle Axe Creek and Opal Creek is already protected as mining claims, it would be unnecessary for [Mr. Hewitt] to file for this area as a millsite" (Exh. R-17Y). However, by letter dated June 11, 1969, the Assistant Regional Forester for the Pacific Northwest Region, FS, informed Victor Atiyeh, Mr. Hewitt's son-in-law:

Mr. Hewitt has decided to pursue the filing of millsites to include the buildings necessary in continuing to develop the mineral values of his nearby claims. The Forest Service has no objection to this and in fact, we feel it is quite appropriate for as long a period as the millsites are used in a manner consistent with the provisions of the Mining Laws.

I believe it would be helpful both to Mr. Hewitt and the Forest Service for one of our mining engineers to meet with Mr. Hewitt at the site to fully discuss the millsites as to area and procedure. Following such a discussion a list of sequential steps will be prepared to allow simultaneous abandonment of the claims and filing of the millsites.

(Exh. R-Z). On April 1, 1970, FS sent a plat of the proposed millsite to Mr. Hewitt, requesting his approval and inquiring as to whether it was necessary for Mr. Hewitt to even file a millsite application (Exh. R-17BB). On April 16, 1970, FS stated that the "proposed millsite to cover the Hewitt buildings appears to be laid out in the most reasonable manner" (Exh. R-17CC).

The evidence simply does not support FS' claim that Shiny Rock failed to use and occupy the Hewitt and the Poor Boy millsites for 10 years prior to the FS road withdrawal in 1964. Nor does the record support FS' other two claims, *i.e.*, that Shiny Rock has not used or occupied any of the three millsite claims for mining and milling purposes, and that there is no source of ore for the millsites.

In its posthearing response, Shiny Rock provides extensive detail as to its milling operations on the three millsites subsequent to the FS withdrawal in 1964 to the present. Exhibits R-42, R-43, R-44, and R-45 show the concentrate production from the millsites for the mill operating years 1976 and 1977. Exhibit R-45 provides a summary showing that 19 tons of lead concentrate were produced and sold to ASARCO and 79 tons of zinc concentrate were produced and sold to Bunker Hill. Although FS disputed certain aspects of the ASARCO sales (see Exh. G-55), Paul Deville, Shiny Rock's controller at the time, signed an affidavit stating that the sales were actually made from concentrates produced at the millsites. Some minor production of concentrates took place in 1979 and 1980, but renewed production efforts were not recommended until 1984. Shiny Rock retained mining contractors in 1983 to begin rehabilitation of the fifth level of the Ruth mine (Tr. 1559). <sup>10/</sup>

Henderson testified during the hearing regarding the activities of Shiny Rock at the mining claims and millsites during 1984 and 1985. Exhibit G-37 comprises Henderson's compilation of photographs and notes taken and prepared during the 1984 operating season. Although these notes and photographs were presented by FS to dispute the extent of Shiny Rock's activities, we agree with Shiny Rock that "[w]hat they do show, beyond question, is that Shiny Rock's activities at the millsites in its endeavors to mill ore and produce concentrates during 1984 were very substantial" (Shiny Rock Posthearing Response at 38).

George Atiyeh testified that the concentrate produced in 1984 was sold to Pacific Commercial under two contracts (Exhs. R-46 and R-47; Tr. 1562-63). Exhibit R-48 shows the weigh tickets, demonstrating that 11.69 tons of lead and 27.06 tons of zinc were produced and shipped to Pacific Commercial during the 1984 season (Tr. 1953-56). These shipments were substantiated by the photographs and notes made by Mr. Henderson in Exhibits G-37 and R-21. Exhibit G-50 is a computer summary of projected 1984 operations, based upon average production at one ton per hour through the mill. Exhibit R-49 is the 1986 Pacific Commercial letter to counsel for FS confirming the purchase of 8.75 tons of lead concentrate and 30 tons of zinc concentrate from Shiny Rock at the conclusion of the 1984 season. <sup>11/</sup>

Shiny Rock asserts that Henderson's "gallery of photos and notes, accumulated in Exhibits G-38 and R-22, unequivocally demonstrate one

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<sup>10/</sup> While Shiny Rock's production of concentrates at the millsites was limited during the period from 1977 to 1985, this fact does not, given the extensive evidence regarding its occupation and other activities during that period, affect the validity of those claims. The Board has held that "in the absence of actual use of the land for mining or milling purposes, the claimant must show 'an occupation, by improvements or otherwise, as evidences an intended use of the tract in good faith for mining or milling purposes.'" United States v. Swanson, 93 IBLA at 22, 93 I.D. at 300, quoting Charles Lennig, 5 L.D. 190 (1886). Although "the mere intention to use land for mining and milling purposes some time in the future is not sufficient to validate a location," United States v. Herron, A-27414 (Mar. 18, 1957), the evidence demonstrates that Shiny Rock's intention to use the millsites involved herein has never been simply a future matter.

<sup>11/</sup> See note 4 *supra*.

thing: enormously successful and substantial mill operations during the 1985 season" (Shiny Rock Posthearing Response at 38-39). Shiny Rock refers to his photographic display as "unexcelled." *Id.* at 39. Our review of those exhibits confirms Shiny Rock's assertion that they support Judge Morehouse's finding that these millsites are valid, rather than the contrary. Shiny Rock's daily mill operating reports, comprising Exhibits R-63 and R-85, reinforce that conclusion. Even Henderson admitted that a substantial amount of milling work was performed at the millsites during the 1985 season (Tr. 1214).

In support of its argument that Shiny Rock had not used or occupied the millsites for mining and milling purposes, FS argued during the hear-ing that Shiny Rock used the millsites for recreational purposes. Start-ing in 1983, Ranger Raley began keeping notes of what vehicles were behind the locked gate to which Shiny Rock and FS had keys. Raley testified that there was a big party held at the millsites on July 4, 1983. He took the license numbers and discussed taking those numbers with one of Shiny Rock's employees, but he failed to determine the purpose for the party (Tr. 786). The purpose for the party was a reunion for all of the miners who had worked at the Ruth mine since the 1930's (Tr. 786, 1790). The only other recreational activity observed by Ranger Raley was a meeting held in August 1983. Again Raley recorded license numbers. On cross-examination, he acknowledged that the meeting was of Shiny Rock's board of directors (Tr. 769). FS' argument that these claims were used for recreational purposes is simply not supported by the record, and in fact detracts from the limited merit of its argument that the millsites were not used or occupied for mining or milling purposes.

To summarize, we reverse that portion of Judge Morehouse's decision which declares the Santiam No. 1 lode mining claim invalid, and affirm those portions which rule that the Morning Star and the Ruth No. 1 and No. 2 lode mining claims, as well as the Starvation, Hewitt, and Poor Boy millsite claims, are valid.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, Judge Morehouse's September 4, 1987, decision is reversed in part, and affirmed in part.

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Will A. Irwin  
Administrative Judge

I concur:

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C. Randall Grant, Jr.  
Administrative Judge